

CLAIMS:

1. An isolated chemoattractant protein capable of attracting eosinophils and of inducing eosinophil accumulation and/or activation in vitro and in vivo, consisting of or comprising an amino acid sequence having at least 40% homology with the amino acid sequence set out in SEQ.ID. NO. 1 or SEQ.ID. NO. 2.
2. A chemoattractant protein as claimed in claim 1, having at least 40% homology with the amino acid sequence set out in SEQ.ID. NO. 2.
3. A chemoattractant protein as claimed in claim 1, consisting of or comprising an amino acid sequence as set out in SEQ.ID. NO. 1 or SEQ.ID. NO. 2.
4. A chemoattractant protein capable of attracting eosinophils and of inducing eosinophil accumulation and/or activation in vitro and in vivo, which is a polypeptide or peptide fragment of a chemoattractant protein as claimed in any one of claims 1 to 3.
5. A process for the production of a chemoattractant protein as claimed in claim 1, which comprises obtaining broncho-alveolar lavage fluid or an inflammatory exudate from a human or a non-human animal challenged with a provoking stimulus, and isolating a fraction that demonstrates eosinophil chemoattractant activity in vitro and in vivo.
6. A process for the production of a chemoattractant protein as claimed in claim 1, which comprises culturing in vitro macrophages, lymphocytes, neutrophils, mast cells, airway epithelial cells, connective tissue cells, vascular endothelial cells or eosinophils obtained from a human or a non-human animal, and isolating from the cells or from the cell culture fluid a fraction that demonstrates eosinophil

chemoattractant activity in vitro and in vivo.

7. A chemoattractant protein as claimed in any one of claims 1 to 4, obtained by chemical synthesis or by recombinant DNA technology.

8. An agent that inhibits or otherwise hinders the production, release or action of a chemoattractant protein as claimed in any one of claims 1 to 4, the agent being other than RANTES.

9. An agent as claimed in claim 8, which is a receptor for a chemoattractant protein as claimed in any one of claims 1 to 4, an antagonist for a chemoattractant protein as claimed in any one of claims 1 to 4 at a receptor for that protein, or an agent that inhibits an agonist that binds to or activates a receptor for a chemoattractant protein as claimed in any one of claims 1 to 4.

10. An agent as claimed in claim 9, which is a receptor for the chemoattractant protein.

11. An agent as claimed in claim 9, wherein a receptor antagonist or an agonist inhibitor is a polypeptide in which the sequence of a full-length naturally-occurring chemoattractant protein as claimed in any one of claims 1 to 4 has been modified by amino acid substitution, or is a polypeptide or peptide fragment comprising part of the amino acid sequence of a naturally-occurring chemoattractant protein as claimed in any one of claims 1 to 4 and retaining the capability of attracting eosinophils and of inducing eosinophil accumulation and/or activation in vitro and in vivo, or is a polypeptide or peptide fragment comprising part of the amino acid sequence of a naturally-occurring chemoattractant protein as claimed in any one of claims 1 to 4, which sequence has been modified by amino acid substitution.

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12. An agent as claimed in claim 9, wherein a receptor antagonist is a chemotactic cytokine that binds to the same receptor as does the chemoattractant protein.

13. An agent as claimed in claim 8, which is an antibody against a compound as claimed in any one of claims 1 to 4.

14. An agent as claimed in any one of claims 8 to 13, for use as a medicament.

15. Use of an agent that inhibits or otherwise hinders the production, release or action of a chemoattractant protein as claimed in any one of claims 1 to 4, in the manufacture of a medicament for the treatment of asthma or another inflammatory disease.

16. A pharmaceutical preparation which comprises, as active ingredient, an agent as claimed in any one of claims 8 to 13, in admixture or conjunction with a pharmaceutically suitable carrier.

17. A method of treating asthma and other inflammatory diseases, comprising the administration of an effective amount of an agent that inhibits or otherwise hinders the production, release or action of a chemoattractant protein as claimed in any one of claims 1 to 4.

18. A method as claimed in claim 18, wherein the agent is as claimed in any one of claims 9 to 14.

19. An immunoassay for an antigen or other assay for one member of a specific binding pair, characterised in that the antigen or member of the specific binding pair is a chemoattractant protein as claimed in any one of claims 1 to 4.

20. An immunoassay for an antibody, characterised in that the antibody is an antibody that forms a complex with a chemoattractant protein as claimed in any one of claims 1 to 4.

21. A method of testing a compound for an inhibitory effect on the activity of a chemoattractant cytokine in vitro, characterised in that the chemoattractant cytokine is a chemoattractant protein as claimed in any one of claims 1 to 4.

22. A method of determining the ability of a substance to induce eosinophil accumulation and/or activation in vivo, which comprises administering the substance to a test animal previously treated with labelled eosinophils and subsequently determining the number of labelled eosinophils at a skin site.

23. A method for determining the ability of a substance to inhibit eosinophil accumulation and/or activation induced in vivo by chemoattractant protein as claimed in any one of claims 1 to 4, wherein to an animal pretreated with labelled eosinophils is administered and the chemoattractant protein and the number of labelled eosinophils at a skin site are subsequently determined.

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